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REMARKS/ARGUMENTS

Applicant has fully considered the Non-Final Office Action mailed August 29, 2006 and requests reconsideration of the application.

Claim Objections

In the Office Action, the Examiner objected to claims 12, 13, 18, and 19 for certain informalities. In the above amended claims, Applicant has amended the claims as requested by the Examiner. Applicant respectfully requests that this ground for objection to the claims is withdrawn in light of the amendment.

35 U.S.C. §112, 2nd ¶ Rejection

The Examiner rejected claims 1 and 4-8 under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to point out and distinctly claim the subject matter which the applicant regards as the invention. In actions, the Examiner indicated that in each one of the above claims "line 6, the definition of "n" in formula $[H_2C=CHCH_2N^+R_1R_2R_3]_nX^-$ is missing.

It is clear from the Federal Circuit decisions on § 112, second paragraph issues that definiteness of claim language must be analyzed, not in a vacuum, but in light of (1) the content of the particular application disclosure, (2) the teachings of the prior art, and (3) the claim interpretation that would be given by one possessing the ordinary level of skill in the pertinent art at the time the invention was made. See, e.g., *Atmel Corp. v. Information Storage Devices, Inc.*, 198 F.3d 1374, 53 U.S.P.Q.2d 1225 (Fed. Cir. 1999), "it is well-established that the determination whether a claim is invalid as indefinite 'depends on whether those skilled in the art would understand the scope of the claim when the claim is read in light of the specification.'" quoting *North Am. Vaccine Inc. v. American Cyanamid Co.*, 7 F.3d 1571, 1579 (Fed. Cir. 1993). See also, *Howmedica Osteonics Corp. v. Tranquil Prospects, Ltd.*, 401 F.3d 1367, 1371 (Fed. Cir. 2005), wherein the Federal Circuit overturned an invalidity decision, concluding that "one of ordinary skill in the art would readily ascertain from the written description of the patents that the "transverse sectional dimension" calls for a two-dimensional

measurement").

As noted in *S3 Inc. v. nVidia Corp.*, 259 F.3d 1364, 59 U.S.P.Q.2d 1745 (Fed. Cir. 2001):

The purpose of claims is not to explain the technology or how it works, but to state the legal boundaries of the patent grant. A claim is not "indefinite" simply because it is hard to understand when viewed without benefit of the specification.

Id. at 1369.

One of the earliest cases decided by the Federal Circuit with respect to the "precision and definiteness" requirement was *In re Marosi*, 710 F.2d 799, 218 U.S.P.Q. 289 (Fed. Cir. 1983). The invention at issue in *Marosi* was a process for making zeolitic compounds that did not require the use of alkali metals. The claims described the crystalline metal silicate used in the process as "essentially free of alkali metal." The specification defined the claim terminology as follows:

Free from alkali metal, for the purposes of the invention, means essentially free from sodium ions. The residual alkali metal content of such zeolites is in principle only attributable to impurities of the chemicals used as starting materials. . . . Thus, commercial pyrogenic silica (Aerosil), which is a particularly suitable starting material, contains about 4 ppm of Na₂O.

In re Marosi, 710 F.2d at 802, 218 U.S.P.Q. at 292.

The Board held that the claim limitation "essentially free of alkali metal" did not satisfy the second paragraph of § 112. According to the Board, there was no teaching or disclosure to define an upper limit to the claim limitation even when the claims were read in light of the specification.¹

The PTO argued before the Federal Circuit that it was impossible for one skilled in the art to determine the "essentially free of alkali metal" line between 4 ppm and the 3,819 ppm of the prior art. The Federal Circuit responded that the PTO's position was impractical to the extent that the PTO was requiring Marosi to specify a particular number as the cut-off between his invention and the prior art.

Marosi's invention, the court stated, did not reside in such a number. The term

¹ The Board found the term "essentially free of alkali metal" to be a significant part of the claimed invention since it served to distinguish the invention over the prior art.

"essentially free of alkali metal" had to be read in light of the specification to give it its broadest reasonable interpretation. *Id.* Since Marosi's specification set forth the method for synthesizing zeolites in the absence of alkali metal, and recognized that industrial chemicals always contained traces of alkali metals, the Federal Circuit found the language sufficiently definite, stating:

"Marosi has provided a general guideline and examples sufficient to enable a person of ordinary skill in the art to determine whether a process uses a starting material 'essentially free of alkali metal' to make a reaction mixture 'essentially free of alkali metal' to produce a zeolitic compound 'essentially free of alkali metal.' We are persuaded that such a person would draw the line between unavoidable impurities in starting materials and essential ingredients."

Id. at 803, 218 U.S.P.Q. at 292.

The issue as to whether a claim is indefinite or not will turn on what does the claim mean to a person of ordinary skill of the art in light of the specification. To assist with this issue, Applicant has attached the declaration of the inventor of pending application Leonard L. Diaddario, Jr. In support of the attached declaration of Mr. Diaddario, Applicant has attached two documents from an internet search regarding "principles ionic chemistry."

The first document is a search result page in which item 12 from Rockhurst College informs a searcher that ionic bonding is part of a first semester general chemistry class. The second document is an on-line description of a chemistry course catalog for Cal Tech which discloses to a reader that ionic substances are included in the general chemistry class.

In light of the level of skill of the person of ordinary skill in the relevant art being a person with at least an undergraduate degree in chemistry and few years of relevant industrial experience and that the issue at hand deals with understanding a general concept taught in a 100 level university course, it is the Applicant's position that a person of ordinary skill in the art would understand the meaning of "n" as presented in claims 1 and 4-8. As such, Applicant requests that the Examiner withdraw the rejection based on the attached declaration, supporting documents, and the remarks made herein.

Lastly, the Examiner indicated that claims 1-20 include allowable subject matter and provided reasoning. Applicant thanks the Examiner for indicating the claims include allowable subject matter.

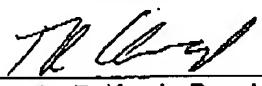
CONCLUSION

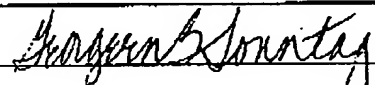
In view of the previous remarks and amendments, Applicant submits that the pending claims (claims 1-22) are in condition for allowance.

Respectfully submitted,

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October 4, 2006
Date


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